

REMARKS/ARGUMENTS

Claims 1-33 remain in the application for further prosecution. Claims 1 and 2 have been amended. The Applicant thanks the Examiner for allowance of claims 21-23.

§ 112 Rejections

Claims 1-16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claim 1 so as to obviate the section 112 rejection. Claim 1 now requires a model-retention section in the lower region, and the model-retention section includes a smaller transverse dimension relative to the lowermost section. As such, the model-retention section helps to axially retain the implant analog within the model. One example of such a configuration is provided by a lower groove, as set forth in claim 2.

§ 103 Rejections

Claims 1-20 and 24-33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,419,702 (Beaty) in view of U.S. Patent No. 5,863,201 (Lazzara).

The Applicant respectfully suggests that a *prima facie* case of obviousness has not been established. On page 4 of the Office Action, it is suggested that the skilled artisan would have combined Lazzara and Beaty, yet no reason or motivation for such a combination is set forth. Specifically, it is suggested that the skilled artisan would have taken Beaty's implant analog and "provided an analog with an unthreaded main body, flat section, lower grooved section and an upper section that extends above the bone which replicates the upper above bone section of the Lazzara implant." Office Action, p. 4. In essence, this statement suggests to simply take the narrow neck portion 14 in Lazzara's implant and add it to Beaty's analog. But, there is no reason

or motivation to make such a modification to (or a combination of) Lazzara's implant and Beaty's analog. Because it is the Examiner's burden to set forth this motivation or suggestion, a *prima facie* case of obviousness has not been established for this reason alone. M.P.E.P. §§ 2142 & 2143.

More importantly, when considering the clinical procedure and reasoning for taking an impression, it is clear that the skilled artisan would never combine Lazzara's implant and Beaty's analog. First, the groove in the inventive analog that receives the soft modeling material is not intended or designed to replicate any structure on the dental implant. The sole purpose for this groove is to provide a structure to which the soft-tissue modeling material can grasp so as to hold the soft-tissue modeling material on the stone model. See Paragraph 22, US 2003/0162148 (the published version of the present application). On an analog, such as the analog 10 of the present invention, the only exterior features that are intended to replicate corresponding structures on the dental implant are at or above the upper surface 18 (e.g., the upper surface 18 itself, the polygonal fitting 20 on the upper surface 18, and the threaded bore 22). Paragraph 20, US 2003/0162148. The reason for this is simple – the analog is used in the process for developing the final prosthesis that will be attached to the implant, and the structures on the implant that are required for attachment to the dental prosthesis are the upper surface, the polygonal fitting, and the threaded bore. Hence, replicating an exterior structure on the dental implant that is below the implant's upper surface is unnecessary (and, thus, a wasteful manufacturing step) because the dental prosthesis will not contact any such structure located below the upper surface.

Second, the entire teaching of Lazzara's implant and the bone recession must be considered in determining obviousness. Lazzara teaches that, in some instances, the exterior bone surface (denoted as line A-A in FIG. 1) may recede from the upper head portion 12 of the implant 10. Lazzara teaches that this process does not occur immediately after the implant has been installed, or otherwise worked on, by the clinician. In particular, Lazzara teaches that the implant 10 "is buried in bone up to and including the head portion 12, to the level indicated by line A-A in FIG. 1." Lazzara, Col. 2, line 65 to Col. 3, line 2. After healing of the bone and soft tissue has occurred and once masticatory forces are applied, the bone begins to recede to a steady-state condition at approximately 18 months. Col. 3, lines 7-11. In other words, bone recession does not occur and, thus, the neck portion 14 (incorrectly referred to by the Examiner as the "upper groove 14") of the implant 10 is not exposed, until after the dental prosthesis has been mounted on the implant 10. See also Lazzara at Col. 1, lines 30-40, which notes that this phenomenon occurs at 18 months after the implant "is performing its task of supporting artificial dentition." Accordingly, if the dental prosthesis has already been attached to the implant when the bone recedes to neck portion 14, any impression that was taken at the site would have necessarily occurred while bone remained at level A-A. This begs the question – why would one of ordinary skill in the art, after considering the entire teaching of Lazzara, conclude that the implant analog should have an upper groove to match to the neck portion 14 of Lazzara's implant when there is no possibility that the neck portion 14 would ever receive or contact the impression material that is used with the implant analog to create a model?

In summary, in addition to the fact that the Office Action fails to provide any motivation for combining Lazzara and Beaty, when one considers their entire teachings, it is clear that there

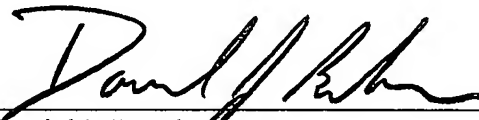
is no logical reasoning to create an upper groove on Beaty's prior art analog simply because Lazzara's implant 10 has a neck portion 14. Moreover, there is absolutely no teaching in either reference about soft-tissue modeling material being placed in an upper groove of an implant analog (or an implant) for retention purposes of the soft-tissue modeling material. Consequently, Applicant respectfully requests reconsideration of the rejections.

Conclusion

It is the Applicant's belief that all of the claims are now in condition for allowance and action towards that effect is respectfully requested.

If there are any matters which may be resolved or clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at the number indicated.

Respectfully submitted,



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Daniel J. Burnham
Reg. No. 39,618
Jenkins & Gilchrist
225 West Washington Street, Suite 2600
Chicago, IL 60606-3418
(312) 425-3900
Attorney for Applicant